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ABSTRACT

A study was conducted to examine how the motion picture Motion Picture Association of America (MPAA) rating system (G-PG-R-X) affects movie attendance. The study also tested the validity of two behavioral theories: (1) reactance theory, which predicts that when a behavioral freedom is restricted or eliminated an individual is motivated to restore that freedom, and (2) commodity theory, which predicts that individuals attach greater value to objects that are in scarce supply than to objects in greater supply. Four film plot synopses, each assigned one of the four ratings, were given to 383 college students, who were asked to read them and decide if they were likely to attend the films. Additional information on frequency of movie attendance and movie attitudes was gleaned from questionnaires returned by 170 of the subjects. The MPAA ratings, with which all the subjects were familiar, were found to significantly affect likelihood of movie attendance. Likelihood of attendance to both PG- and R-rated movies was found to be significantly greater than for both G- and X-rated. No significant difference in likelihood of attendance was found between PG and R ratings, or between G and X ratings. The results did not support either the commodity theory--in that the two least prevalent movie ratings, G and X, were least preferred--or the reactance theory, because both PG- and R-rated movies were preferred over G- and X-rated films. (HTH)

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MOVIE RATINGS AND THEIR EFFECT ON MOVIE ATTENDANCE

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MOVIE RATINGS AND THEIR EFFECT ON MOVIE ATTENDANCE

Practically since its adoption on November 1, 1968, numerous observers have ruminated about the influence of the Motion Picture Association of America's (MPAA) film rating system (G, PG, R, X) on movie attendance. Contrary to the system's avowed purpose, that of providing "advance information to enable parents to make judgments on the movies they want their children to see or not to see" (Valenti, n.d., p. 1), many such armchair philosophers have contended that certain ratings may either inhibit or attract audiences. This paper presents the results of an experiment which put to an empirical test a question that has long provoked speculation but scant scientific study: Do movie ratings influence attendance decisions?

It is clearly conceivable that movie ratings are interpreted by the public, regardless of age, as warnings concerning various aspects of film content. According to two psychological theories, such warnings or their classificatory implications may serve as a motivational force leading to an increase in the attractiveness of certain films. Reactance theory predicts that when a behavioral freedom is restricted or eliminated the individual is motivationally aroused to restore the threatened freedom. One method of freedom restoration is by actual attempts to engage in the endangered behavioral freedom (see Brehm, 1966; Brehm, 1972; and Clee and Wicklund, 1980). R and X ratings specifically restrict

attendance among under 17-year-olds. Still, it can be validly argued that while these ratings do not "officially" prohibit attendance by persons 17 years and above, their restrictive implications and film content connotations may act as a source of reactance arousal. Indeed, a 1947 study reported that among respondents who felt that movie censorship in general was "too strict," 58% indicated they were more likely to see movies that had "trouble with the censors" while only 15% indicated they were less likely to see such films (reported in Handel, 1950, pp. 128-129).

Commodity theory predicts that individuals attach greater value to objects in a class that are in scarce supply than they do to objects in more abundant supply (see Brock, 1968). And, as Herman and Leyens (1977, p. 49) state, "increased value can be manifested in greater attraction." MPAA ratings act as a method of product classification or categorization, thereby perhaps identifying for the consumer the profusion or scarcity of the commodity. Therefore, according to commodity theory, those movies with ratings that are less prevalent should be most attractive. Presently most movies are rated either PG or R. Between November 1979 and October 1980 only 4% and 10% of all films submitted for rating were G- and X-rated respectively ("MPAA Film Ratings," 1980). Hence, the attractiveness of these films should be greater than for the more abundant PG and R films.

An application of these two theoretical approaches by Herman and Leyens (1977) examined the audience for Belgian television (the RTB). The RTB broadcasts warnings (qualifications)

about some of the movies it programs. Herman and Leyens recorded the viewing habits of a sample audience for RTB films broadcast over a four-year period and found that "qualifications make the movies more desirable for the television viewers. As a result, the movies with advisories were watched more than the movies without them" (p. 53).[1]

In summary, reactance theory predicts greater attraction (and hence attendance) to R- and X-rated movies because of their freedom restrictions; commodity theory predicts greater attraction to G- and X-rated movies due to their limited availability relative to PG- and R-rated films.

REVIEW OF LITERATURE

Despite the frequently voiced "cookie jar syndrome" espoused by some writers, the MPAA has always maintained that there exists no relationship whatsoever between a film's rating and its box office returns. However, as one report has noted, "there have been no researched studies on the relationship between the various MPAA ratings and box office receipts" (Subcommittee on Special Small Business Problems, 1978, p. 54). Jack Valenti, MPAA president, has gone so far as to advance "Valenti's Law of Ratings: If you have a movie that a lot of people want to see, no rating will hurt it. If you have a movie that few people want to see, no rating will help it" (Valenti, 1977, pp. 2-3). Conversely, Fuchs and Lyle (1972, p. 253) state that film ratings, especially those which prohibit attendance for certain age groups (R and X), "probably enhance a film's attractiveness."

For the most part, the popular rhetoric on the ratings' influence has been focused on the G and X categories and may be summarized as follows. The extreme categories, though polar opposites in one sense, create, in another sense, congruent connotations in the public. A G rating may convey an innocuous image of juvenile innocence and childish (or child-oriented) film content. To adult movie-goers this image is probably unattractive and hence their likelihood of attending films so rated is lessened.[2] In contrast, an X rating might imply that the picture contains offensive content explicitly portrayed; with few exceptions (Emmanuelle or Last Tango in Paris for instance) such content is not socially sanctioned and thus attendance (regardless of interest perhaps) to such fare is inhibited.[3] Hence, while the public perception of the "meaning" of these two ratings may differ in terms of content, they may agree in terms of behavioral outcome: G and X ratings may be "box office poison," the popular rhetoric says.

For producers, distributors, exhibitors, and audiences alike, the middle ground occupied by PG- and R-rated films may be the most comfortable.[4] Although empirically untested, these two categories might be interpreted by these four aggregates as mature in both content and audience orientation (or appropriateness).[5] For films so rated, their attractiveness to audiences, therefore, should be greater than for films rated G or X.[6]

In sum, popular perception of the MPAA's ratings may be described as: G, childish or infantile; PG, adolescent; R, adult; and X, deviant. It is important to reiterate that, to date,

these dimensions have not been empirically validated.

What, then, is the state of the empirical body of knowledge concerning film ratings and their potential behavioral influence on audiences? Perhaps somewhat surprisingly, very few published reports exist on this topic. While research has been conducted on the public's awareness of the system (Opinion Research Corporation, 1977; Valenti, 1976) and how they evaluate it (Aaronson, 1973; O'Dell, 1973; "Poll Okay for MPAA Ratings," 1980; Yeager, 1971), the fairness with which ratings have been assigned to independent producers as compared to major studios (Subcommittee on Special Small Business Problems, 1978), the distribution of top-grossing films by rating (Austin, 1980b), and financial success ratios by rating (Austin et al., 1980), only six studies have even tangentially addressed the question of the ratings' influence on an individual's movie attendance.

A 1972 survey of Southern Californians conducted by the Los Angeles Times reported that the rating of a movie was ranked by, respectively, adults and teenagers as the second and third most important factor (of a total of 15 factors presented) in determining whether or not to see a movie. Austin (1980c) reported that among high school students more than half indicated that a film's rating was either "very important" or "important" to their attendance decision. A study of the importance assigned by college students to 28 variables in the movie attendance selection process found that MPAA ratings ranked 19th in importance overall; occasional movie-goers (attendance of less than twice a month) also ranked this variable 19th while frequent (twice a month or

more) movie-goers ranked it 15th in importance (Austin, 1980d).

According to the Times study, 37% of the total sample would not go to see an X-rated film, 9% would not go to an R-rated movie, and 1% did not want to see G films; 8% preferred G- or PG-rated films while 5% preferred R or X. Respress' 1973 research indicated that of the teenagers in his sample, 5% preferred G-rated films, 33% preferred GP (now PG), 47% preferred R, and 15% preferred X.

The Times study found that 49% of the adults and 60% of the teenagers in its sample reported that they checked to see what rating a movie had before deciding whether or not to attend. In agreement with this finding are the results of a study by Robertus and Simons (1970) which found that teenagers were more likely than their parents to report using the ratings in film selection. (Note that this is somewhat at odds with the system's ostensible purpose -- that of providing advice for parents concerning their children's movie attendance.)

Only one (pilot) study, using an experimental design, has been conducted to directly test the influence of movie ratings on attendance (Austin, 1980a). The results of that report showed no significant difference ($p > .05$) in the subjects' (high school students) likelihood of attending a film when the film's MPAA rating was varied. The present research is a replication of this earlier study and offers several improvements: use of a random sample, a larger sample, and an expansion of the size of the response scale (from five to seven-points).

METHOD

Respondents to a self-administered anonymous questionnaire and experimental instrument used in this study were students enrolled in randomly drawn classes of a northeastern college. Distribution and collection of data occurred in December 1979.[7]

The experiment reported here replicates Austin's (1980a). Subjects in the experiment were asked to indicate their likelihood of attending each of four different (fictitious) films. The experimental treatment consisted of presenting the subjects with four one-page film plot synopses. Included in each synopsis was the film's title and an approximately 175-word description of the film. Following the synopsis (on the same page) was a short paragraph indicating the film's producer, director, screenplay writer, and male and female stars (all persons named here are actual film producers, directors, screenwriters, or actors). Finally, set off on a line of its own, the film's MPAA rating was noted (e.g., "This picture has been rated R: restricted, under 17-year-olds must be accompanied by a parent or guardian"). The experimental manipulation consisted of varying the MPAA film rating. Therefore, some subjects received film A as rated G, others received film A rated PG, and so forth. All subjects received a total of four film plot synopses: one with a G rating, one with a PG, one with an R, and one with an X. Thus, the experimental design employed here was a four (ratings) by four (film plot synopses) repeated measure simple Latin square. To control for the possibility of some subjects picking up a pattern (i.e., recognizing the experimental manipulation), the exact

order of presentation of film synopses was systematically varied by MPAA rating. The subjects were randomly assigned to one of the four treatment groups.

The subjects were instructed to read each film plot synopsis and to then indicate their likelihood of attending each on a seven-point scale. Response options ranged from "Very likely to go to see this movie" to "Very unlikely to go to see this movie." The subjects were explicitly told not to compare one film to any of the others when deciding on their likelihood of attendance. (Further, just before reaching the response options the subjects read the following: "For the film described above, ***title of film***, would you say that you are:") Following the four film plot synopses, on a separate page, the subjects were asked to indicate their sex, age, and year in school.

A total of 383 individuals participated in the experiment. Males made up 74.3% of the sample (which parallels the population from which they were drawn). The subjects ranged in age from 17 to 46 years ($\bar{X}$=20.7 years, Md=20.4 years) and their academic class status was as follows: 27.8% freshmen, 15.2% sophomores, 22.8% juniors, and 34.1% seniors.

The experimental instrument was completed by the subjects during their class period. The subjects were also given a self-administered questionnaire to complete at home. This questionnaire, which was part of a larger film audience research project,[8] included several inquiries relevant to the present study and not dealt with in the previous study. Questionnaire items germane to the study reported here included the following: the respondents'

frequency of movie attendance, the importance they assigned to movie-going as a leisure activity (measured on a seven-point scale), their familiarity with the rating system, whether they had attended R- and X-rated movies, their general likelihood of attending movies with each of the four rating symbols (measured on a seven-point scale), and the title of the last film they had attended. This last item was designed as an unobtrusive measure of the respondents' tendency to attend films of one or another of the MPAA ratings. All film titles were later assigned their MPAA rating by consulting the MPAA's Classification and Rating Administration Annual Reports.

A total of 170 questionnaires, 54% of those distributed, were returned. Respondents to this questionnaire ranged in age from 17 to 35 years ($\bar{X}$=20.7 years, Md=20.4 years), 68.9% were male, and the distribution by academic class was as follows: 28.0% freshmen, 15.9% sophomores, 21.8% juniors, and 31.8% seniors.

For purposes of analysis the repondents were later placed into one of two attendance groups: persons reporting attendance of one movie a month or less were labeled as Occasional movie-goers (n=117); persons reporting attendance greater than one movie a month were labeled as Frequent movie-goers (n=53). The respondents were also later placed into one of two groups according to the importance they assigned movie-going as a leisure activity: persons reporting scale values of one through four on this measure were categorized in the Unimportant Activity group (n=126); persons reporting scale values of five through seven were categorized in the Important Activity group (n=44).

To determine the impact of movie ratings on attendance in

the experimental condition the data were subjected to an analysis of variance test. Differences in the respondents' self-reporting of their general likelihood of attending movies with each of the four rating symbols were analyzed by sex, frequency of movie attendance, and importance of movie-going using ANOVA. Pearson product-moment correlation was also employed to measure the association between respondents' likelihood of attendance at films with each of the four ratings.

Before presenting the results of this study, an important consideration is that of external validity, especially the representativeness of the sample (population validity). As Lowry (1979, p. 62) has noted: "if one of the main purposes of social research is to develop general explanations of human behavior, then the question of population validity is always of some importance in a research study" (emphasis in original). Research presented in the early 1970s showed that 18-to-29-year-olds made up 48% of the movie-going public (National Association of Theatre Owners, 1976, p. 40). More recently, Gertner (1980, p. 32A) reports that 58% of the total 1977 film admissions were accounted for by 16-to-29-year-olds. Moreover, individuals with at least some college education comprise both the largest and most frequent movie-going aggregate. Thus, as Elliott and Schenck-Hamlin (1979, p. 553) state, "for film research, the college student may be more representative than student samples used in other research."

RESULTS

In order for the rating system to have an effect on attendance

decisions, the individual must be aware of the system's existence. Virtually all (99.4%) of the respondents in this study reported that they were familiar with the MPAA's ratings. This finding confirms previous research (Valenti, 1977; Opinion Research Corporation, 1977) attesting to the public's awareness of the rating system.

Results of the analysis of variance test performed on the experimental data are presented in Table 1. Two significant main

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Table 1 About Here

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effects and one interaction effect reached statistical significance. MPAA ratings were found to significantly affect likelihood of attendance. Likelihood of attendance to both PG- and R-rated movies was found to be significantly greater than for both G- and X-rated films. No significant difference in likelihood of attendance was found between PG and R or between G and X.

The pilot study, upon which the present research was based (Austin, 1980a), found no significant difference ($p > .05$) in likelihood of attendance at the four film plot synopses used in the experiment, thereby suggesting the neutrality of the experimental instrument itself. The data reported here, however, shows a significant ($p = .0172$) main effect for likelihood of attendance at the plot synopses (which were identical in content to those used in the pilot study).

Table 1 also indicates one significant interaction effect: frequent movie-goers who evaluated movie-going as an important

leisure activity reported significantly greater likelihood of attendance at G-rated movies than Frequent movie-goers who evaluated movie going as an unimportant leisure activity. All other interaction effects proved nonsignificant. Results of subsequent analysis of the experimental data, with the addition of sex as an independent variable (not shown in table), also proved nonsignificant with one exception: likelihood of attendance to X-rated movies was significantly greater among males than females.

In the take-home questionnaire the respondents were asked a series of three questions concerning the rating symbols which restrict (R) or prohibit (X) attendance among under 17-year-olds. Table 2 presents the results of the data gathered for these inquiries.

Table 2 About Here

Most (97%) of the respondents had attended an R-rated movie and more than half (58.1%) had attended an X-rated film. Chi-square analysis of these data indicated that there had been significantly greater attendance to R- than X-rated movies (X^2=73.12, df=1, $p < .001$, C=.42). Significantly more males reported having attended X-rated movies than did females (X^2=10.67, df=1, $p < .001$, C=.25). Chi-square tests of significance were performed to test for differences between males and females, Occasional and Frequent moviegoers, and Unimportant and Important Activity groups on the remaining five questions and all proved nonsignificant ($p > .05$). Table 2 also shows that for both R- and X-rated movies few respondents had had their ID checked or had been refused admittance to such films.

These findings are to be expected given the age range of the sample and hence the inapplicability of an ID-checking procedure.

For the sample as a whole, the mean values for general likelihood of attendance (7.0=very likely to attend) at movies with each of the four ratings symbols were: G, 3.83; PG, 4.89; R, 5.09; X, 3.05. Results of t-tests performed on these means showed that the sample was significantly (in all cases $p < .001$, two-tailed) more likely to attend G- than X-rated, PG- than G- and X-rated, and R- than G- and X-rated movies. No significant difference ($p > .05$, two-tailed) was found between the sample's likelihood of attendance for PG- and R-rated movies.[9]

Results of the ANOVA routine for responses to the questions concerning general likelihood of attendance at movies with each of the four rating symbols are presented in Table 3. Females,

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Table 3 About Here

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significantly moreso than males, reported greater likelihood of attendance to G- and PG-rated movies. Males were found to have reported greater likelihood of attendance to X-rated films than females. For R-rated movies, the main effect for sex was non-significant.

Significant main effects for the movie-going as a leisure activity variable were found for the PG and R symbols. In both cases, the Important Activity group reported greater likelihood of attendance than the Unimportant Activity group. One significant main effect for the movie attendance groups was found:

Frequent movie-goers reported greater likelihood of attendance at G-rated films than Occasional movie-goers. For X-rated movies the main effect for this variable was marginally significant and in the same direction as was found for G-rated movies.

The only interaction effects found to reach statistical significance were for G-rated movies. Here it was found that female-Frequent movie-goers reported greater likelihood of attendance than the other three subgroups. The three-way interaction effect indicates that the female Frequent-Important Activity group had a significantly greater likelihood of attendance mean value than did the remaining seven sample subgroups.

Results of the Pearson correlation test performed on the sample's general likelihood of attendance at films with each of the four rating symbols are presented in Table 4. As may be seen,

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Table 4 About Here

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the highest positive correlations were found between the PG and R ratings.

Table 5 displays the percentage by rating for the movie the

Table 5 About Here

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respondents had most recently attended. These data are presented in two forms. First, the percentages of individual titles (and, as later coded, their ratings) are offered (Raw total). Here it was found that the respondents reported a total of 65 different

films. The second method of presentation is the percentage of the total number of times the 65 titles were reported (Total mentions). This perspective offers perhaps a better index of film (and by implication, rating) popularity than does the first method.

The data shown in Table 5 indicate that no X-rated movies were reported by the respondents as the last film they had attended. Few pictures with no rating were reported (these films were all pre-1968 films and were most likely seen by the respondents at either the local repertory theater or the college's film programming "Classic Cinema" series).

Table 5 clearly indicates that among all subgroups of the sample PG- and R-rated films predominate as the rating symbols attached to the film most recently attended. However, Chi-square tests for differences within (e.g., males: Raw total by Total mentions) and between (e.g., males by females) sample subgroups all proved non-significant ($p > .05$). Nevertheless, the pattern of attendance by rating shows that PG- and R-rated films were the most frequently attended. Comparisons between the Raw totals and Total mentions in every subgroup shows a diminished percentage from the former to the latter in every rating category except R. Pictures attended with an R-rating increased percentage-wise from the Raw total to the Total mentions.

DISCUSSION

Commodity theory predicts that individuals will have greater attraction to objects within a class that are less abundant than

those more readily available. The results of this study do not support such a prediction in that the two least prevalent movie ratings, G and X, were found to be least preferred. Instead, contrary to commodity theory's prediction, overall, from both the data gathered in the experimental condition and, especially, the two self-report methods (general likelihood of attendance and last movie attended), the two most favored rating symbols were PG and R. That commodity theory's prediction was not supported is best illustrated by the self-report data since the experimental instrument presented the subjects with an equal distribution of rating symbols (one of each). The general likelihood of attendance self-report data are virtually unequivocal in the preference rankings assigned to the ratings: attendance to R-rated movies was most likely, followed by PG, then G, and, lastly, X. Respondents' preferences for the rating symbols, as illustrated by the second self-report method, showed an unqualified rank order of R, PG, G, X. The total sample's mean score values derived from the experiment showed the ratings rank order as R, PG, X, G.

The differences found between self-report and experimental rank order placement of the G and X symbols can be explained by the context in which the respondents encountered these symbols. The experimental condition involved a hypothetical situation which required the subjects to project their likelihood of attendance with no true behavioral, psychological, social, or financial commitment. Moreover, there were no actual -- or even potential -- consequences that could have occurred as a result of their decision, and hence possibly influenced, the subjects' decisions

The self-report data, especially actual attendance reports, represented real situations with real commitments and consequences. Therefore, it can be concluded that, with regard to the X rating in particular, the experimental instrument evoked perhaps a desire on the part of the subjects that is not analogous to their actual behavior. Nevertheless, all three methods of measurement and their findings converge insofar as they show the G and X symbols as least favored by this sample.

That G and X ratings were the least preferred of the four symbols supports the results of previous research by Respress (1973) and Austin (1980a). Moreover, this finding also tends to lend credibility and support to the assertions of some armchair philosophers that these two ratings are "box office poison."[10] The exact reasons as to why this exists are, at this point, open to conjecture (as was suggested earlier in the review of literature) and offers a compelling direction for future research.

It can be suggested that commodity theory's prediction, as conceptualized here, may not have been borne out due to a lack of cognizance among this sample (and, perhaps, the public at large) about the unequal frequency of availability of the four ratings. The public's perception of the equality -- or lack thereof -- of availability regarding the rating symbols has heuristic value. Testing of this aspect of movie ratings might be conducted simply by having the respondents rank order (from most to least available) and assign percentages of availability to each of the four symbols.

Nevertheless, it should be noted that the antipathy shown the G and X ratings by this sample is not to suggest that movies with

such ratings are invariably avoided by the cinema audience. Clearly, there have been successful (in terms of financial, critical, and audience-size criteria) G- and, to a much lesser extent, X-rated films. However, such films have tended to be few and far between.[11]

Reactance theory predicts that when a behavioral freedom has been restricted or eliminated individuals enter an aroused state and are motivated to restore that freedom. Earlier it was argued that R and X ratings might act as a source of reactance arousal. The findings of the study reported here indicate that the X symbol did not function as a reactance stimulus. Based on the sample's rank order for preferences among the four ratings one might be tempted to posit that the R rating did perform as a source of evoking reactance. However, such an assertion is mitigated by the results of the experiment which showed both the PG and R symbols as the ratings which were significantly preferred to G and X. Moreover, no significant difference in likelihood of attendance was found between PG and R in both the experimental and self-report conditions.

At this juncture in the research concerning the influence of the MPAA's ratings on attendance, perhaps the most reasonable conclusion to be drawn is that the four-category rating system has, in actuality, moved to a two-category system in terms of audience acceptability. As was noted in the review of literature, PG and R have been the most frequently assigned ratings: during the twelfth year of the ratings (November 1979-October 1980), these two symbols accounted for fully 86% of all pictures rated ("MPAA

Film Ratings," 1980). Furthermore, this general tendency, which can be clearly observed (and with increasing sharpness) over the twelve years that the system has been in effect, may have also induced a narrowing of the attendance acceptability of the various ratings among audiences.

The two centrist categories, PG and R, unquestionably dominated both this sample's actual attendance and attendance preferences (see also Austin et al., 1980). Therefore, as Austin (1980a) noted in his study of high school students, one may conclude that for movie ratings and their relationship to attendance, the menu equals the diet: that which is most commonly offered is that which is most commonly consumed. The relative paucity of availability for viewing G- and X-rated movies directly affects one's opportunity to attend such pictures, regardless of desire. Finally, as was suggested earlier, that these two categories might be interpreted by producers, distributors, exhibitors, and audiences as the most "comfortable" or "appropriate" cannot be dismissed at this stage. Still, further research is needed in this area.

Replication of the experiment conducted for this study is called for given the results of the ANOVA routine which found a significant main effect for the film plot synopses. A plausible explanation for the contradiction in findings in this regard, between the present study and Austin's (1980a), is the difference in the education level of the samples employed (high school versus college students). Nonetheless, the results of the study reported here indicate that the synopses used in the experimental instrument were differentially favored by the subjects irrespective of rating.

Research on the influence of various film classification and/or censorship schemes needs to be conducted outside of the United States. Since 1970, for instance, the British Board of Film Censors has issued certificates to films in one of four categories that are roughly equivalent to those established by the MPAA (U, A, AA, and X); Canada also has a film classification system which varies by province (in Ontario, for example, movies are classified into one of three categories: General, Adult, or Restricted). Such research as suggested above would be valuable from both a psychological and a communications policymaking perspective. The findings of such research, to note but three examples, would clearly be useful in furthering understanding of human motivation, film audience behavior, and the efficacy of existing or proposed film audience appropriateness classifications.

TABLE 1

ANOVA: Latin Square Design-Experiment

Source	SS	df	ms	F	p
Total	2283.250	1149	1.987		
Rating (R)	56.525	3	18.841	9.87	.0001
Movie synopsis (M)	19.454	3	6.484	3.40	.0172
R x M	20.875	6	3.479	1.82	.0914
Movie importance (I) x R	3.275	3	1.091	.57	.6376
I x M	12.363	3	4.121	2.16	.0896
R x Movie attendance (A)	12.604	3	4.201	2.20	.0848
M x A	1.301	3	.433	.23	.8768
I x R x M	5.499	6	.916	.48	.8233
A x R x M	12.126	6	2.021	1.06	.3854
I x A X R	14.939	3	4.979	2.61	.0494
I x M x A	.960	3	.320	.17	.9155
I x A x R x M	22.279	6	3.713	1.95	.0706
Error	2101.043	1101	1.908		

TABLE 2

Attendance at Movies with R and X Ratings

	YES	NO	DON'T RECALL
Have you ever attended an R-rated movie? (n=168)	97.0%	3.0%	*
If you have attended an R-rated movie, was your ID checked? (n=166)	10.2%	88.6%	1.2%
Have you ever been refused admittance to an R-rated movie? (n=168)	10.1%	89.9%	*
Have you ever attended an X-rated movie? (n=167)	58.1%	41.9%	*
If you have attended an X-rated movie, was your ID checked? (n=114)	14.0%	83.4%	2.6%
Have you ever been refused admittance to an X-rated movie? (n=121)	4.1%	95.9%	*

*not presented as a response option for this question

TABLE 3

ANOVA: Likelihood of Attending G, PG, R, and X Movies by Sex, Frequency of Movie Attendance, and Importance of Movie-Going

G-rated movies

Source	SS	df	ms	F	p
Total	273.333	167	1.636		
Sex (S)	16.955	1	16.955	10.908	.001
Attendance (A)	8.439	1	8.439	5.430	.021
Importance (I)	2.143	1	2.143	1.379	.241
S x A	10.570	1	10.570	6.801	.009
S x I	5.138	1	5.138	3.306	.070
A x I	3.377	1	3.377	2.173	.142
S x A x I	7.165	1	7.165	4.610	.033
Error	248.691	160	1.554		

PG-rated movies

Source	SS	df	ms	F	p
Total	235.269	166	1.417		
S	6.588	1	6.588	4.832	.029
A	.573	1	.573	.421	.517
I	12.024	1	12.024	8.819	.003
S x A	.499	1	.499	.366	.545
S x I	3.519	1	3.519	2.582	.110
A x I	.084	1	.084	.062	.803
S x A x I	.832	1	.832	.610	.435
Error	216.786	159	1.363		

R-rated movies

Source	SS	df	ms	F	p
Total	250.467	166	1.508		
S	.410	1	.410	.283	.595
A	3.861	1	3.861	2.658	.105
I	11.501	1	11.501	7.918	.005
S x A	2.642	1	2.642	1.819	.179
S x I	.039	1	.039	.027	.868
A x I	.163	1	.163	.113	.737
S x A x I	.374	1	.374	.258	.612
Error	230.969	159	1.452		

X-rated movies

Source	SS	df	ms	F	p
Total	430.514	166	2.593		
S	18.796	1	18.796	7.893	.005
A	8.658	1	8.658	3.636	.058
I	3.959	1	3.959	1.663	.199
S x A	4.822	1	4.822	2.025	.156
S x I	.057	1	.057	.024	.877
A x I	2.732	1	2.732	1.147	.285
S x A x I	4.752	1	4.752	1.996	.159
Error	378.624	159	2.381		

TABLE 4

Pearson Correlation: Likelihood of Attending Films by MPAA Rating

	PG	R	X
G			
Total sample (n=167)	.32***	-.11	.05
Males (n=118)	.27**	-.16	.03
Females (n=50)	.36**	-.05	.26
Occasional (n=116)	.27**	-.22*	.00
Frequent (n=52)	.44***	.10	.15
Unimportant (n=124)	.37***	-.10	-.01
Important (n=44)	.23	-.19	.21
PG			
Total sample		.50***	-.03
Males		.48***	-.05
Females		.57***	.07
Occasional		.50***	-.07
Frequent		.51***	-.01
Unimportant		.50***	-.09
Important		.42**	.01
R			
Total sample			.16*
Males			.20*
Females			.11
Occasional			.18*
Frequent			.08
Unimportant			.16
Important			.13

*p < .05 (two-tailed)
**p < .01 (two-tailed)
***p < .001 (two-tailed)

TABLE 5

MPAA Rating for Last Movie Attended

	G	PG	R	no rating	TOTAL n
Total sample					
Raw total (RT)	10.8%*	36.9%	46.2%	6.1%	65
Total mentions (TM)	4.9	29.3	62.8	3.0	164
1. Males					
RT	6.2	41.7	45.8	6.2	48
TM	3.6	28.6	64.3	3.6	112
		X^2=4.83	df=3	p > .05	
2. Females					
RT	12.9	35.5	48.4	3.2	31
TM	8.2	32.7	57.1	2.0	49
		X^2=.86	df=3	p > .05	
3. Occasionals					
RT	8.2	38.8	48.9	4.1	49
TM	3.5	31.0	63.7	1.8	113
		X^2=4.1	df=3	p > .05	
4. Frequents					
RT	12.5	31.2	46.9	9.4	32
TM	7.8	25.5	60.8	5.9	51
		X^2=1.71	df=3	p > .05	
5. Unimportant					
RT	11.1	37.0	44.4	7.4	54
TM	5.8	28.9	61.2	4.1	121
		X^2=4.89	df=3	p > .05	
6. Important					
RT	3.4	34.5	62.1	0.0	29
TM	2.3	30.2	67.4	0.0	43
		X^2=.29	df=2	p > .05	

1 x 2 (RT)	X^2 = 1.51	df = 3	p > .05
1 x 2 (TM)	X^2 = 2.18	df = 3	p > .05
3 x 4 (RT)	X^2 = 1.58	df = 3	p > .05
3 x 4 (TM)	X^2 = 3.69	df = 3	p > .05
5 x 6 (RT)	X^2 = 4.66	df = 3	p > .05
5 x 6 (TM)	X^2 = 2.78	df = 3	p > .05

*percentages by row may not total 100 due to rounding

FOOTNOTES

[1]For a related study on advisory warnings broadcast on U.S. television see Wurtzel and Surlin (1978).

[2]Jeffries (1978, p. 51) asserts that since many producers believe the G rating to be "box office poison" they "try to ensure a PG or R rating by the gratuitous addition of 'strong' language or nudity or violence." Jennings Lang, producer of Universal's Little Miss Marker, states that "'G' can be a problem. Kids are attracted to a 'PG' because they think something exciting is happening." Lang notes that for his film to qualify for a PG he included some "strong language" ("Modern Kids," 1980, p. 7). David Friedman, Chairman of the Board for the Adult Film Association of America writes, "I think most people in the [film] industry agree that the G-rating, with the exception of Disney films, is a detriment. Major studios today seem to try for the PG rating on most of their pictures" (Friedman, 1979). Despite such remarks as these, a few producers are convinced that, with proper marketing, G-rated films can be profitable (see "G for Gold," 1977). Austin et al. (1980) found that during the 1969-1979 period G-rated films enjoyed a 24.2% success ratio (as compared to overall success ratios of 26.7% for PG-rated films, 13.7% for R, and 5.0% for X). The success ratio used by Austin et al. was determined by dividing the frequencies with which the various ratings were assigned to features by the frequencies with which feature films in each category earned $1 million (adjusted for inflation) or more in domestic rentals.

[3]Fearing that an X rating "would have meant a financial kiss of death," director Brian DePalma resubmitted his latest film, Dressed to Kill, three times before it qualified for an R (Wood, 1980, p. 13). Sidney Ginsberg (1980, p. 36), executive vice president of Health & Entertainment Distributing Corp., writes that "The 'X' Rating stigma was for me the 'Kiss of Death'; it prevented me from functioning in the market place and stopped me many times from getting my ads placed in the newspapers." Conversely, Friedman (1979) writes that the Adult Film Association of America is "a unique specialized segment of the motion picture industry; an X-rating prominently displayed in advertising for our pictures is our only big selling point." Currently, some distributors are using the strategy of simply not submitting certain pictures of theirs for a rating and releasing these films, which they anticipated would have been X-rated, with various "warning tags" (e.g., "adults only" or "This picture contains scenes of a violent nature"). See "'Mother's Day'" (1980) and "Analysis Self-X's" (1980) for further information on "ducking the MPAA." For additional discussion of producers' and distributors' concerns regarding the X rating see "'Timing' Producer" (1980) and Champlin (1980).

[4]It may also be, as Child (1980), an Arizona exhibitor, suggests, that these two symbols, PG and R, are also the most misunderstood among audiences: "Everyone knows what an 'X' film is and what a 'G' film is -- but the misunderstanding between 'PG' and 'R' is incredible." Audiences are probably not alone insofar as feeling the indistinct nature of these two symbols. Producer

Don Devlin has remarked, "We're confused about what makes a movie an R or a PG" (Ronan, 1979, p. 13). MPAA President Valenti once admitted, "Where I think we have failed is in being able to communicate what GP [now PG] means" ("Rating the Rating System," 1971, p. 73).

[5]An often cited problem with the present rating system is the vagueness of the symbols themselves. Such concerns regarding the meaning of the rating symbols run the gamut from the seriously interested to the snidely cynical (e.g., wags have been known to explain that the PG symbol stands for "pretty gamey"). While the MPAA asserts that it is providing information to parents, critics of the system maintain that due to the nebulous nature of the four symbols' meaning the public is being offered only initials. In 1971 Time reported ("Rating the Rating System," p. 72) "there has been increasingly vehement criticism that the categories ... are just so much alphabet soup." Richard Heffner, chairman of the MPAA's Classification and Rating Administration, claims that CARA's "main objective is to provide an early-warning signal to parents" (1980, p. 39) but confesses that he feels parents do not universally understand the symbols' definitions (p. 40). See also Garner (1980) for a discussion of the informative value of the ratings. Despite long-running resistance by the MPAA to making explicit why a film was rated the way it was (e.g., labeling a film as "R-L" for restricted to under 17-year-olds due to language), an informal agreement between the MPAA and NATO (National Association of Theatre Owners) to test-out an "explanatory PG" has recently been reached (see Tusher, 1980). For R-rated movies offered on cable television,

one distributor has adopted a new rating symbol, PS (for "Private Screening") in an attempt for greater clarity (see Harris, 1980).

[6]The first major study of pay-cable televiewers found that "Movies, particularly those with an R rating, are the most popular programs on pay cable" ("New Study," 1979). Levy's (1980, p. 25) study of home video recorder owners found that among VCR owners "The largest proportion of pre-recorded cassettes viewed (38.9 percent) consisted of X- or R-rated films." The R rating may not be perceived as attractive in rural areas as it is in urban markets (see "'R' Stands for Family Resistance," 1976).

[7]Copies of both the questionnaire and experimental instrument are available from the author.

[8]Data analysis and discussion of a portion of this project is presented in Austin (1980d).

[9]The t-values for these comparisons are as follows: G x PG=8.192, df=333; G x R=9.417, df=333; G x X=5.064, df=333; PG x R=1.515, df=332; PG x X=12.218, df=332; R x X=13.259, df=332.

[10]Austin et al. (1980), however, reported that G-rated movies may not be box office poison. Their study showed that over the eleven years of ratings studied, such films trailed the top category (PG) by only 2.5% in financial success ratios. In fact, in 1979 G-rated movies achieved their highest success ratio ever (54.6%), leading PG (44.8%) and R (20.6%).

[11]In 1979, for instance, 12 G-rated movies earned $1 million or more in domestic rentals; among the top-ten grossing films that year two, Star Trek and The Muppet Movie, were G-rated ("Big Rental Films of 1979," 1980). See also Austin et al. (1980).

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